CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER NO. 85-123
NPDES NO. CA0037834
CA0037842
CA0037621

AMENDING NPDES PERMITS FOR:

CITY OF PALO ALTO
CITIES OF SAN JOSE/SANTA CLARA
CITY OF SUNNYVALE
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

- 1. The Regional Board, on February 20, 1985 adopted Order Nos. 85-19 and 85-16 and on June 16, 1982 adopted Order No. 82-37 prescribing waste discharge requirements for the City of Palo Alto, Cities of San Jose and Santa Clara and City of Sunnyvale respectively (hereinafter called the dischargers). These orders contain prohibitions affecting the dischargers current and future discharge of wastes to waters of South San Francisco Bay or its tributaries south of Dumbarton The discharge prohibitions implement the Board's 1982 Water Quality Control Plan for San Francisco Bay Basin (Basin Plan) and the State Board Policy for Enclosed Bays and Estuaries. The prohibitions inthese Orders have not yet been met; under the Federal Clean Water Act and States' NPDES Compliance Policy the discharger must comply with these prohibitions by July 1, 1988.
- 2. On February 20, 1985 the Board adopted Time Schedule Order Nos. 85-20, 85-17 and 85-21 directing the dischargers to comply with their requirements prescribed in Order Nos. 85-19, 85-16 and 82-37 respectively. This Order supersedes Order Nos. 85-20, 85-17 and 85-21 and implements updated compliance time schedules to ensure compliance with Basin Plan prohibitions by July 1, 1988.
- 3. The City of Palo Alto and the Cities of San Jose/Santa Clara, and Sunnyvale are members of the joint powers authority named the South Bay Dischargers Authority (SBDA).

The SBDA is the lead agency for the construction of necessary disposal facilities, such as the Basin Plan Alternative (a joint outfall north of Dumbarton Bridge), for all three member agencies and has prepared a Final Environmental Impact Statement (EIS) for the proposed disposal project.

- 4. The SBDA and Environmental Protection Agency Final EIR/EIS adopted July 1980 recommended the alternative of "No Action Beyond Currently Approved Improvements at Treatment Plants". The currently approved improvements at the discharger's treatment plant can meet current Board effluent limits when operating properly, but do not meet Basin Plan prohibitions for:
 - a. 10:1 initial dilution;
 - b. discharge to dead-end sloughs or confined waterways;
 - c. discharge to San Francisco Bay south of Dumbarton Bridge;

and may not meet Basin Plan prohibitions of discharge of conservative toxic and deleterious materials above levels achievable by source control, especially for continued discharge at the present location. In addition discharges may inhibit receiving water limitations from being consistently met.

- 5. The SBDA and EPA EIR/EIS recommended a "no project alternative" (No Further Action) for the following reasons:
 - "1. The degree to which increased dilution resulting from discharge north of the Dumbarton Bridge will mitigate the adverse impacts on the biota of the South Bay could not be predicted.
 - 2. Modeling studies had not shown that a substantial improvement in dissolved oxygen concentrations would result if the discharges were moved out of the sloughs (Individual Deep Water Discharge Alternative) or out of South Bay (Basin Plan Alternative).
 - 3. The viability of future full reclamation is now being investigated in a Regional Waterwater Reclamation Study. Several local small-scale programs are in the planning or implementation stage; however, these

these programs do not preclude a requirements for disposal of some portion of the flow. The Regional Wastewater Reclamation Study and smaller programs, if implemented, could meet the planning requirements of the San Francisco Bay Basin Plan."

- 6. The FEIR/FEIS concluded that the No Further Action Alternative would have the following water quality impacts:
 - a. Significant impacts can occur to aquatic biota during treatment plant upsets;
 - b. Dissolved oxygen level depletions would affect greater areas of Artesian Slough and Guadelup Sloughs during the dry (summer) and canning seasons than the Basin Plan Alternative;
 - c. Relative toxicity levels would be of an order of magnitude higher (400 vs. 50 ml/l) with the No Further Action Alternative vs. the Basin Plan Alternative;
 - d. Continued potential for degradation of sediment quality in sloughs.
- 7. The FEIR/FEIS proposed further investigations that may allow possible reconsideration of the SBDA and EPA recommended No Project Alternative at some future date:
 - a. Futher monitoring to fully evaluate the impacts of present treatment and disposal systems against the standard of a level of environmental protection equal to a deep water outfall.
 - b. Investigate regional and local wastewater reclamation.
- 8. The investigations noted in Finding 7 will not provide mitigation of the possible significant water quality impacts. The high costs of implementing the Basin Plan Alternative (jointly approaching \$200 million), the lack of historical water quality background data, and the possibility of only marginal water quality improvements make it infeasible at this time to fully mitigate or avoid the significant water quality impacts of the proposed "No Project" Alternative.

- 9. During the September 1979 and August 1980 treatment process upsets (and for other minor periods) at the San Jose/Santa Clara Water Pollution Control Plant the need was demonstrated for increased reliability of the treatment process along with significant measures to mitigate plant upsets in the South Bay.
- 10. On September 2, 1980 the SBDA (on behalf of the dischargers) submitted a petition and proposed montioring program requesting the Board consider a deferral of 5 years from implementing the Basin Plan prohibitions. The petition makes clear that the SBDA and dischargers feel that:

"...there are no available data that would indicate that he proposed change of discharge location would improve South Bay water and sediment quality; nor can such data be developed from a monitoring program with the disposal systems continuing at their present locations. Both the SBDA and EPA feel that such locatin change could be detrimental to said quality. Based upon the above factors and the high cost of proposed diversion pipeline, the SBDA expects to request cancellation of this discharge prohibition."

However, SBDA cited that there is a gap in the historic data of the South Bay in biological resources and the relationship between these resources, water quality and advanced waste treatment. Also SBDA believes that data from secondary discharges to the South Bay are not sufficient to demonstrate maintenance or enhancement of water quality by implementing advanced waste treatment. SBDA proposed the deferral for 5 years from Basin Plan prohibitions while a water quality study is initiated to provide some of the data to fill the gaps. SBDA believes the data will confirm that equivalent protection can be provided with continued discharge at the present sites compared to a sub-regional outfall at Dumbarton Bridge and also in the event of "spills" because the extremeties are less sensitie and more resilient to degraded conditions, especially when coupled with adequate contingency plans. Due to the incomplete historical data, the incomplete implementation of the contingency plans, the 1979 and 1980 "spill" at the San Jose/Santa Clara Water Pollution Control Plant, and the lack of data verifying these assertions (especially for the long-term) the Board could not agree with SBDA's assertions at that time.

- 11. The Final EIR/EIS and petition were lacking in data sufficient to grant exceptions to the Basin Plan for the following reasons:
 - a. Water quality issues have not been resolved to substantiate maintenance and/or enhancement of beneficial uses. These issues include dissolved oxygen levels, nutrients, toxicity, heavy metals, coliform and avian botulism.
 - b. Commitments have not been found to enable the implementation of substantial reclamation projects.
 - c. Net environmental benefits presently identified or implemented are inadequate.
 - d. Consistent compliance with NPDES Permit conditions for receiving waters has not been demonstrated.
 - e. Adequate mitigation measures in case of treatment plant upsets have not yet been fully implemented nor a commitment made.
 - f. Enhancement, as presently documented, is inadequate and the potential enhancements are also inadequately documented.
- 12. The Regional Board recognizes that:
 - a. Some data are still lacking on the water quality impacts of the discharge of improved levels of treated municipal wastewater.
 - b. The cost of implementation of the Basin Plan Alternative is significant.
 - c. The viability of future full reclamation is still a possibility.
 - d. Full implementation of operation, contingency and mitigation measures by the discharger has not been accomplished.
- 13. A deferral is still reasonable to reconsider the implementation of the Basin Plan and Bay and Estuaries Policy prohibitions and to determine the earliest practicable date for compliance, provided the discharger

resolves the issues in Findings 11 and 12. In Order Nos. 81-11, 81-12 and 81-13 the Board granted the dischargers a five-year deferral to (a) conduct a water quality study and biological monitoring program to establish evidence to substantiate a request for exception from the prohibition, and (b) submit a technical report documenting net environmentatl benefits and enhancement by the continued discharge from the present location. The study and report are being conducted and in preparation respectively. There is no new evidence at this time that precludes continuing the deferral until conclusion of th study and preparation of the report.

- 14. The Board has notified the dischargers and interested agencies and persons of its intent to prescribe revised requirements for the discharger.
- 15. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.
- 16. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389.

IT IS HEREBY ORDERED, that the dischargers shall comply with Prohbitions A.l., A.2., and A.3. and Receiving Water Limitation 2.a. and 2.c. of Order Nos. 85-16 and 82-37 in accordance with the following amendments:

- A. The following shall be added to Order Nos. 85-19, 85-16 and 82-37 as Section F:
 - F. Time Schedule for Prohibitions A.l., A.2. and A.3. and Receiving Water Limitations C.2.a and C.2.c:
 - 1. Continue the approved water quality study and biological monitoring program in a manner satisfactory to the Executive Officer. The discharger shall submit a status report due 1 March and an Annual Report due 1 September. The Annual Report shall provide analysis and interpretation of data along with recommendations for future work (to include modifications).
 - 2. Continue the preparation of the technical report documenting the net environmental benefits and

and existing and potential enhancement of the receiving waters by the continued discharge to San Francisco Bay south of the Dumbarton Bridge.

Submit Annual Progress Reports by 1 September.

- 3. Submit a final report on achieving compliance with Prohibitions A.1, A.2, and A.3 and Receiving Water Limitations C.2.a and C.2.c not later than 1 September 87. If the findings in the discharger's studies in 1. and 2. above suport the dischargers desires to request the Board's consideration of granting an exception to Prohibitions A.1., A.2., A.3. or Receiving Water Limitations C.2.a and C.2.c, then the discharger's final report shall also contain the request, documentation, implementation and mitigation plan, and rationale (e.g. net environmental benefits, etc.) for the Board's consideration.
- 4. Full compliance with all prohibitions shall be achieved not later than July 1, 1988. Monitoring not meeting the Receiving Water Limitations of C.2.a. and C.2.c. prior to July 1, 1988 compliance date shall not be reported as violations.
- 5. Order Nos. 85-20, 85-17 and 85-21 are hereby rescinded.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on November 20, 1985.

ROGER B. JAMES

Executive Officer